

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**ALGEBRA SKILLS PRACTICE QUIZ****PART 1:**

**Directions:** Complete the ten problems below, showing any work necessary.  
Circle your final answers (2 pts each).

1. Simplify: $(8x - 5)^2$	2. Simplify: $(7x^2 - 4x^2 + 17) - (3x^3 + 6x^2 - 8x - 5)$
3. Simplify: $(2x^2 + 7x - 3) + (4x^2 + 6x - 7)$	4. Simplify: $(2x + 5)(4x - 9)$
5. Factor: $16x^2 - 121$	6. Factor: $3x^2 + 7x - 20$
7. Solve: $4 - 2(3x - 5) = 8(x - 7)$	8. Solve: $8(x + 3) - 5 = 4(6x - 9)$
9. Solve: $\frac{2x - 7}{3} = \frac{3x + 4}{7}$	10. $\frac{x}{8} = \frac{12}{32}$

**PART 2: SLOPE and WRITING EQUATIONS OF LINES.** Find the slope or write the equation of the lines with the following properties.

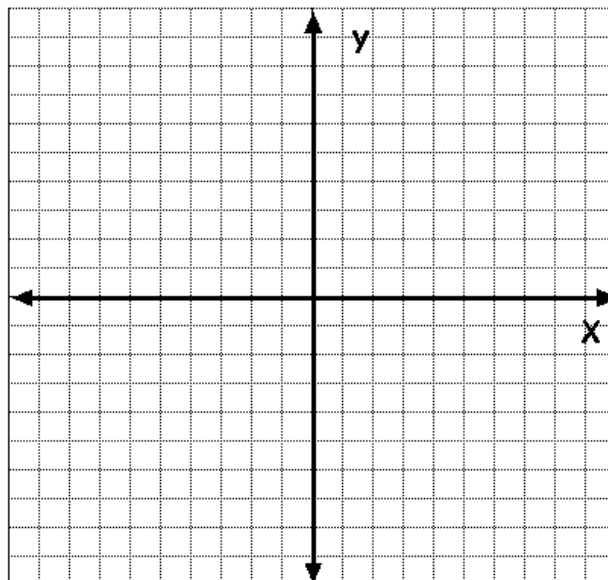
11. Find the slope of the line that passes through the points  $(-2, 5)$  and  $(-4, -1)$ . (3 pts.)

12. Write the equation of the line that passes through the point  $(-3, 8)$  & has a slope of  $-\frac{1}{6}$ . (3 pts.)

13. Write the equation of the line that passes through the points  $(-6, -7)$  and  $(-5, -3)$ . (4 pts.)

**PART 3: GRAPHING.** Graph the following equation. (3 pts.)

14.  $y = -\frac{3}{2}x - 4$



**FORMULAS:**

<p><b>Slope Formula:</b> <math>m = \frac{y_2 - y_1}{x_2 - x_1}</math></p>	<p><b>Slope-Intercept Form:</b> <math>y = mx + b</math></p>	<p><b>Point-Slope Form:</b> <math>(y - y_1) = m(x - x_1)</math></p>
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